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ABSTRACT

Frequency of aggression in 5- to 8-year-old children was examined in relation to frequency of helping, comforting and sharing. Subjects (39 boys and 40 girls attending a summer day camp) were each observed for two hours and their aggressive and prosocial behaviors recorded. This study differed from previous investigations of this issue in two respects: (1) individual differences in opportunities to help others were identified and statistically controlled; (2) assertive but nonaggressive behaviors were distinguished from behaviors intended to insult or injure and the importance of assertiveness as a predictor of prosocial behavior was assessed. Although assertiveness was positively and significantly related to prosocial behavior for boys and girls, no significant relations were identified between agression and prosocial behavior when the sample was split on sex alone. When the sex groups were subdivided into those above and below the respective group medians in aggression, significant negative relations between aggression and prosocial behavior emerged for both groups of boys, but only when number of opportunities to help others was controlled. For girls, there were no significant relations between aggression and prosocial behavior. Apparent discrepancies between the present findings and earlier reports of positive relations between aggressive and prosocial acts are explained and methodological refinements discussed. (Author/SE)

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A RE-EXAMINATION OF THE RELATIONSHIP BETWEEN AGGRESSION AND PROSOCIAL BEHAVIOR IN CHILDREN

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Abstract

Frequency of aggression in 5- to 8-year-old children was examined in relation to frequency of helping, comforting and sharing. 39 boys and 40 girls attending a summer day camp were each observed for two hours and their aggressive and prosocial behaviors recorded. The current study differed from previous investigations of this issue in two respects. First, individual differences in opportunities to help others were identified and statistically controlled. Second, assertive but non-aggressive behaviors were distinguished from behaviors intended to insult or injure and the importance of assertiveness as a predictor of prosocial behavior was assessed. Although assertiveness was positively and significantly related to prosocial behavior for boys and girls, no significant relations were identified between aggression and prosocial behavior when the sample was split on sex alone. When the sex groups were subdivided into those above and below the respective group medians in aggression, significant negative relations between aggression and prosocial behavior emerged for both groups of boys, but only when number of opportunities to help others was controlled. For girls, there were no significant relations between aggression and prosocial behavior. Apparent discrepancies between the present findings and earlier reports of positive relations between aggressive and prosocial acts were explained with reference to the methodological refinements characterizing the present study.

In a series of studies, members of our laboratory have been investigating children's emerging sensitivities to others' needs and feelings (Yarrow & Scott, 1972; Yarrow, Scott & Waxler, 1973; Yarrow, Waxler et al., 1976). Our most recent studies have focused on differences among children in the extent to which they help, comfort and share with others in natural situations.

Sources of variation in children's prosocial behavior are not well understood. One of the few variables to have been repeatedly examined in relation to prosocial behavior is aggression. In three studies which related frequency of aggression to frequency of sympathetic or supportive behaviors, positive correlations were obtained for boys and girls (Murphy, 1937; Sears et al., 1965; Friedrich & Stein, 1973). The relations are surprising for they violate our intuitive notions about the incompatibility of antisocial and prosocial behaviors. Further, they are inconsistent with a stimulus-response view of learned aggressiveness, the position that consistently aggressive behavior represents a generalized tendency to interpret social stimuli as hostile or in some way threatening (Feshbach, 1962).

In general, the positive relations identified between aggression and prosocial behavior have been interpreted in terms of individual differences in social orientation or social activity (Murphy, 1937; Feshbach, 1970; Friedrich & Stein, 1973). According to this view, both aggressive and prosocial behaviors reflect a tendency to initiate contact

with others. Thus, the variance in prosocial behavior apparently attributable to differences in aggression represents a variance component related to differences in sociability, rather than to aggression or prosocial behavior per se.

If the positive relations can be attributed to the mediating influence of individual differences in number of interpersonal contacts, systematically controlling for such differences should reduce the correlations. Yarrow, Waxler, et al. (1976) correlated frequency of aggressive acts with frequency of comforting and sharing responses among nursery school children, statistically controlling for the frequency of social interactions. Results were surprising and complex. For boys low in aggression, aggression and prosocial behavior were significantly and positively correlated. For boys high in aggression the correlation was negative. No significant relations were obtained for girls.

The Yarrow, Waxler et al. study raised several important methodological issues. First, it indicated that relations between aggression and prosocial behavior were not adequately summarized by a single correlation coefficient; they depended at the very least on the child's sex and absolute level of aggression. Second, the study indicated that if relations between aggression and prosocial behavior could be accounted for by differences in opportunities to help others, a more sensitive measure of such opportunities would have to be used to control for this source of variation. Third, the finding of a curvilinear relation between aggression and prosocial behavior for the boys in the sample raised the question of

the role of assertiveness in the relationship between aggression and prosocial behavior. If the aggressive behaviors obtained for the low aggression subjects were more assertive than hostile, the positive relationship identified in this group might be interpreted as indicating the importance of assertiveness as a predictor of prosocial behavior.

In the current study, we examined the social behavior of five to eight year old children at a summer day camp. This report deals with one facet of that study: a re-examination of the relationship between aggression and prosocial behavior in children. In considering this question, we gave particular attention to the aforementioned methodological issues. Subjects were separated, in analyses, according to both sex and level of aggression. We attempted to control for exposure to helping situations by identifying all bids for help and cues for intervention which the child received from others, and statistically controlling for differences in such opportunities to respond prosocially. Finally, we made the distinction at the observation level between assertive but non-aggressive behaviors and behaviors intended to insult or injure, and we examined the role of assertiveness in the relationship between aggression and prosocial behavior.

Method

Subjects were 39 boys and 40 girls, ages five to eight, predominantly white, upper middle class. Each subject was observed for two hours, in eight 15 minute samples of free play and camp activity, spaced evenly over a six week period. Each child was observed by four different observers.

Observers recorded social behaviors in sequence on a precoded form consisting of rows listing the different behavior categories and columns marking off 30 second intervals. Behaviors received by the subject as well as those initiated by the subject were recorded.

Included among the behaviors coded were verbal and physical aggression, assertions, prosocial behaviors and opportunities received from others to respond prosocially. The assertion category included commands, implied commands and physical directing. An example of an implied command would be one child saying to another, "We'll do that later." The prosocial behaviors coded were comforting, sharing and helping. In general, behaviors such as praise, affection, and encouragement were not coded as prosocial behaviors unless it was clear that they had occurred in response to perceived distress. A bid or opportunity to help was coded whenever the subject received a direct request from another person for materials, assistance or intervention; or, was in a position to help someone who had made his or her distress known to the group.

To determine observing reliabilities, 18 children were observed simultaneously by two observers on two separate occasions. Reliabilities were determined by correlating frequencies obtained by each observing pair and correcting for length of the observation record using the Spearman-Brown correction. Corrected reliabilities were .90 for assertions, .89 for the combined frequency of prosocial behaviors, and .74 for the total number of bids and requests for help received from others. Due to the low frequencies of aggression in the reliability sample, the reliability for

aggression was determined by correlating odd and even numbered interval scores for all subjects in the sample. The obtained coefficient of equivalence was .65.

Five subjects were observed on fewer than eight occasions. The current analyses were based on a final sample of 35 boys and 39 girls.

Results

As expected, relations between assertiveness and prosocial behavior were significant and positive for both boys and girls; $r(33) = .30$, $p = .08$ for boys, $r(37) = .36$, $p < .03$ for girls. Controlling on opportunities and requests received by the subject to respond prosocially resulted in only somewhat lower correlations.

In contrast, for neither boys nor girls was there a significant relationship between the frequency of aggression and the frequency of prosocial behaviors when the sample was split on sex alone.

Subgroups were then divided into those above and below the respective group medians in aggression, 6.6 for boys and 2.6 for girls. The mean aggression scores were 11.5 for high aggression boys, 2.9 for low aggression boys, 5.5 for high aggression girls and 1.1 for low aggression girls. Except for a significant negative correlation between aggression and prosocial behavior for high aggression boys, $r(16) = -.41$, $p = .09$, the zero-order correlations of aggression and prosocial behavior were nonsignificant. However, when the number of opportunities to respond prosocially was controlled, the partial correlations were significant and negative for both groups of boys; $r(15) = -.42$, $p = .09$ for high aggression boys,

$r(14)=-.77$, $p=.001$ for low aggression boys. Partial correlations were nonsignificant for both groups of girls. Controlling on assertiveness had only a negligible effect on the correlations.

Discussion

The most striking finding was the strong negative relationship identified between aggression and prosocial behavior for low aggression boys, a relation which emerged to a lesser degree in high aggression boys. The importance of controlling for exposure to helping situations is evidenced by the dramatic change in the correlation for the low aggression group, from a simple correlation of -.06 to a partial correlation of -.77. For high aggression boys, controlling on the opportunities variable was inconsequential; at this level of aggression, number of opportunities to help and number of aggressions initiated no longer covaried.

Why similar relations were not obtained for the girls in the sample is not clear. The low correlations cannot be attributed to low variability in aggression scores for girls; the variance of aggression scores was greater for high aggression girls than it was for low aggression boys. However, before interpreting these findings as indicating no substantive relation between aggression and prosocial behavior in girls, it should be recognized that the aggression scores obtained for girls may have been less reliable than those for boys. The aggression observed in girls was primarily verbal. If verbally aggressive behaviors were observed less reliably than physically aggressive behaviors, as analyses indicate they

were, the failure to obtain significant relations between aggression and prosocial behavior for girls may be due to insufficient "correlatable variance" in the aggression variable. In further analyzing the data, we will examine qualitative differences in the aggressive behaviors observed in boys and girls, with a view toward better understanding the differential relations obtained in the two groups.

The results of the present study are consistent with Yarrow, Waxler et al.'s finding of a negative relation between aggression and prosocial behavior in highly aggressive boys, and no clear relation in girls. However, the identification of a strong negative correspondence for the low aggression boys appears to contradict the earlier report. Furthermore, our finding of no significant positive correlations between aggression and prosocial behavior is in marked contrast to previously cited studies which reported consistent positive relations between the variables. It seems reasonable to speculate that such correlations would have been significantly reduced had adequate controls for opportunities to intervene been employed and individual differences in assertiveness been accounted for. However, comparisons between the present study and earlier studies must be tentative. One reason is that previous studies were conducted with nursery school children, while our subjects were several years older, ranging up to seven and eight years of age. Second, prosocial behavior has been defined differently in different studies. For example, whereas Yarrow, Waxler et al. separated helping scores from comforting and sharing scores in analyzing their data, the present analyses were based on a prosocial

measure which combined comforting, sharing and helping responses. Replication of the current findings with samples of different ages and using different measures of prosocial behavior is necessary before we draw conclusions about the significance or spuriousness of the positive relations identified in earlier studies.

What are the theoretical implications of the findings that we have obtained? Causal inferences based solely on the concurrent relations identified would be premature. Nonetheless, the negative correlations between aggression and prosocial behavior which appear, at least for boys, when opportunities to help are controlled do suggest a dynamic relation. They suggest that children who are inclined to respond aggressively to a wide range of stimuli may be limited in the extent to which they can be responsive to signals from others for help, sympathy or support.

One way in which the interplay of aggressive and prosocial responses can be studied is by examining the sequential relations between aggressive and prosocial interactions in the ongoing activity of the child. Fortunately, we are in a position to investigate such relations within the limits of the present data processing operation. Observers in our study indicated on their observation forms when the discrete behaviors they had coded were part of an extended social interaction. Thus, we have been able to recode each individual subject's sequential record of discrete behaviors into sequences of larger social interactions. Brian McLaughlin is developing a computer program which will provide a description in matrix form of the sequential relations between different categories of social interaction,

both for individual subjects and for the group as a whole. This information will enable us to test for sequential dependencies involving prosocial and aggressive interaction categories; for example, to test for the possible facilitative or inhibiting effects of expressed aggression with regard to later prosocial behavior. Results of such contingency analyses, particularly when considered together with the correlational findings, should provide insights into the interrelations between aggressive and prosocial behaviors in children.

It has become increasingly evident that a capacity for sympathetic and compassionate behavior characterizes even the youngest of children. For example, studies currently being carried out in our laboratory by Carolyn Waxler, Robert King, and Marian Yarrow indicate that children as young as 1½ years of age will use physical comforting and the sharing of materials to relieve observed distress in others. Moreover, they document consistent individual differences among these young children in their responsiveness to others' affective states. In preschool and school age children differences in the frequency and quality of prosocial responding are particularly dramatic. The present study, focusing on sources of variation in children's sensitivity to others, has suggested the importance of two independently assessable personality variables -- frequency of aggression and frequency of assertive behaviors -- in the prediction of prosocial behavior. It is not presumed that differences in prosocial responding will be accounted for with a high degree of precision solely on the basis of observable social behaviors; in fact,

we have evidence, soon to be presented, that our ability to predict prosocial behavior from variables such as aggressiveness and assertiveness may well depend on the social inferential capabilities of the children considered. What is clear, however, is that the investigation of empirical relations between different categories of social behavior enables us to generate testable hypotheses about the factors which facilitate or interfere with the development of prosocial patterns of interaction, and the performance of prosocial behaviors in real-life situations.

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